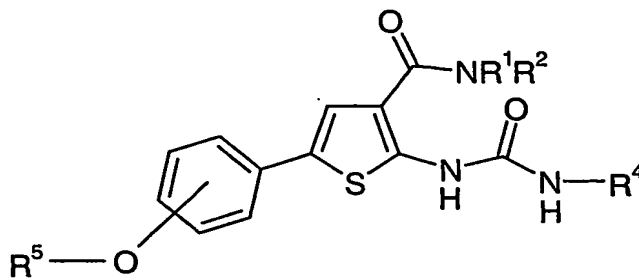


CLAIMS

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1. A compound of formula (I) or a pharmaceutically acceptable salt or *in vivo*-hydrolysable precursors thereof:



(I)

wherein:

R^1 and R^2 are at each occurrence independently selected from H, optionally substituted C_{1-6} alkyl, or optionally substituted heterocyclyl; with the proviso that R^1 and R^2 are not both H; or R^1 and R^2 and the N to which they are attached in combination form an optionally substituted heterocyclyl;

R^4 is selected from H, OH, optionally substituted carbocyclyl, optionally substituted heterocyclyl, or optionally substituted C_{1-6} alkyl;

R^5 is selected from H, optionally substituted carbocyclyl, or optionally substituted C_{1-6} alkyl.

2. A compound of formula (I) or a pharmaceutically salt or an *in vivo*-hydrolysable precursor thereof as recited in claim 1 wherein R^2 , R^4 , and R^5 have any of the meanings defined in claim 1 and

R^1 is an optionally substituted heterocyclyl.

3. A compound of formula (I) or a pharmaceutically salt or an *in vivo*-hydrolysable precursor thereof as recited in claim 1 wherein R^2 , R^4 , and R^5 have any of the meanings defined in claim 1 and R^1 is an optionally substituted heterocyclyl wherein 1,2, or 3 substituents is/are independently selected from halogen, nitro, amino, cyano, trifluoromethyl, alkyl, alkenyl, alkynyl, haloalkyl, alkoxy, hydroxy, alkylhydroxy, carbonyl, $-CH(OH)CH_3$, $-CH_2NH$ -alkyl-OH,

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alkyl-(OH)CH₃, -CH₂-phenyl-(OCH₃)₂, -Oalkyl, -OCH₃, -Ophenyl, -OCOalkyl, -NHCHO, -Nalkyl, -N-(alkyl)-CHO, -NH-CO-amino, -N-(alkyl)-CO-amino, -NH-COalkyl, -N-(alkyl)-COalkyl, -carboxy, -amidino, -CO-amino, -CO-alkyl, -CO₂alkyl, mercapto, -Salkyl, -SCH₂furanyl, -SO(alkyl), -SO₂(alkyl), -SO₂-amino, -alkylsulfonylamino, phenyl, anisole, dimethoxyphenyl, trimethoxyphenyl, halophenyl, cycloalkyl, heterocyclyl, -alkyl-NH-cycloalkyl, -alkyl-NH- heterocyclyl, -alkyl-NH-alkyl-OH, -C(=O)OC(CH₃)₃, -N(CH₃)₂, -N(CH₂CH₃)₂, -alkyl-NH-alkyl- heterocyclyl, -alkyl-aryl, -methyl-phenyl, alkyl-polycyclyl, alkyl-amino, alkyl-hydroxy, -CH₂NH-alkyl-heterocyclyl, -CH₂NHCH₂CH(CH₃)₂, vicinal -O(alkyl)O-, vicinal -OC(haloalkyl)O-, vicinal -CH₂O(alkyl)O-, vicinal -S(alkyl)S- and -O(alkyl)S-.

4. A compound of formula (I) or a pharmaceutically salt or an *in vivo*-hydrolysable precursor thereof as recited in claim 1 wherein R², R⁴, and R⁵ have any of the meanings defined in claim 1 and R¹ is an optionally substituted heterocyclyl wherein 1,2, or 3 substituents is/are independently selected from: -OH, C(=O)OC(CH₃)₃, NH₂, C₁₋₆alkyl, methoxybenzene, or dimethoxy benzene.

5. A compound of formula (I) or a pharmaceutically salt or an *in vivo*-hydrolysable precursor thereof as recited in claim 1 wherein R², R⁴, and R⁵ have any of the meanings defined in claim 1 and

R¹ is a heterocyclyl wherein heterocyclyl is selected from piperdiny, pyridiny, pyrrolidiny, pyraziny, azepany, azetidiny, azabicycloziny, furany, thieny.

6. A compound of formula (I) or a pharmaceutically salt or an *in vivo*-hydrolysable precursor thereof as recited in claim 1 wherein R¹, R⁴, and R⁵ have any of the meanings defined in claim 1 and

R² is H.

7. A compound of formula (I) or a pharmaceutically salt or an *in vivo*-hydrolysable precursor thereof as recited in claim 1 wherein R¹, R², and R⁵ have any of the meanings defined in claim 1 and

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R⁴ is H.

8. A compound of formula (I) or a pharmaceutically salt or an *in vivo*-hydrolysable precursor thereof as recited in claim 1 wherein R¹, R², and R⁴ have any of the meanings defined in claim 1 and

R⁵ is H or an optionally substituted C₁₋₆alkyl.

9. A compound of formula (I) or a pharmaceutically salt or an *in vivo*-hydrolysable precursor thereof as recited in claim 1 wherein R¹, R², and R⁴ have any of the meanings defined in claim 1 and

R⁵ is H or an optionally substituted C₁₋₆alkyl wherein 1,2 or 3 substituents is/are independently selected from: NH₂, NHCH₃, N(CH₂CH₃)₂, N(CH₃)₂, OCH₃, OH, -C₁₋₆alkyl, morpholino, piperidinyl, pyrrolidinyl.

10. A compound of formula (I) or a pharmaceutically salt or an *in vivo*-hydrolysable precursor thereof as recited in claim 1 wherein R¹, R², and R⁴ have any of the meanings defined in claim 1 and

R⁵ is H or an optionally substituted C₁₋₃alkyl.

11. A compound of formula (I) or a pharmaceutically salt or an *in vivo*-hydrolysable precursor thereof as recited in claim 1 wherein R¹, R², and R⁴ have any of the meanings defined in claim 1 and

R⁵ is H or an optionally substituted C₁₋₃alkyl wherein 1,2 or 3 substituents is/are independently selected from: NH₂, NHCH₃, N(CH₂CH₃)₂, N(CH₃)₂, OCH₃, OH, -C₁₋₆alkyl, morpholino, piperidinyl, pyrrolidinyl.

12. A compound of formula (I) or a pharmaceutically salt or an *in vivo*-hydrolysable precursor thereof, as recited in claim 1 wherein:

R¹ is an optionally substituted heterocyclyl;

R² is H;

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R⁴ is H;

R⁵ is H or an optionally substituted C₁₋₆alkyl.

13. A compound of formula (I) or a pharmaceutically salt or an *in vivo*-hydrolysable precursor thereof, as recited in claim 1 wherein:

R¹ is an optionally substituted heterocyclyl wherein the substituent is selected from one or more of the following: -NH₂, C₁₋₆alkyl, -C(=O)OC(CH₃)₃,

R² is H;

R⁴ is H;

R⁵ is H or an optionally substituted C₁₋₆alkyl wherein the substituent is selected from one or more of the following: -C₁₋₆alkyl, -N(C₁₋₃alkyl)₂.

14. A compound of formula (I) or a pharmaceutically salt or an *in vivo*-hydrolysable precursor thereof, as recited in claim 1 wherein:

R¹ is an optionally substituted heterocyclyl wherein the substituent is selected from one or more of the following: -NH₂, C₁₋₆alkyl, -C(=O)OC(CH₃)₃,

R² is H;

R⁴ is H;

R⁵ is H or an optionally substituted C₁₋₃alkyl wherein 1,2 or 3 substituents is/are independently selected from: NH₂, NHCH₃, N(CH₂CH₃)₂, N(CH₃)₂, OCH₃, OH, -C₁₋₆alkyl, morpholino, piperidiny, pyrrolodiny.

15. A compound of formula (I) or a pharmaceutically salt or an *in vivo*-hydrolysable precursor thereof, as recited in claim 1 wherein:

R¹ is a heterocyclyl;

R² is H;

R⁴ is H;

R⁵ is H or a C₁₋₆alkyl.

16. A compound of formula (I) or a pharmaceutically salt or an *in vivo*-hydrolysable precursor thereof, as recited in claim 1 wherein:

R^1 is a 6-membered heterocyclyl containing at least one N in the ring;

R^2 is H;

5 R^4 is H;

R^5 is a C_{1-3} alkyl.

17. A compound of formula (I) selected from:

- tert-butyl 3-([(2-[(aminocarbonyl)amino]-5-{4-[2-(diethylamino)ethoxy]phenyl}-3-thienyl)carbonyl]amino}piperidine-1-carboxylate;
- 10 2-[(aminocarbonyl)amino]-5-{4-[2-(diethylamino)ethoxy]phenyl}-N-piperidin-3-ylthiophene-3-carboxamide;
- 2-[(aminocarbonyl)amino]-5-{3-[2-(diethylamino)ethoxy]phenyl}-N-piperidin-3-ylthiophene-3-carboxamide;
- 15 2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-[(3S)-piperidin-3-yl]thiophene-3-carboxamide;
- tert-butyl 3-([(2-[(aminocarbonyl)amino]-5-{3-[2-(diethylamino)ethoxy]phenyl}-3-thienyl)carbonyl]amino}piperidine-1-carboxylate;
- 2-[(aminocarbonyl)amino]-5-{4-[2-(diethylamino)ethoxy]phenyl}-N-piperidin-4-ylthiophene-3-
- 20 carboxamide;
- 2-[(aminocarbonyl)amino]-N-[(3R)-azepan-3-yl]-5-(4-methoxyphenyl)thiophene-3-carboxamide;
- N-(3-[(4-aminopiperidin-1-yl)carbonyl]-5-{4-[2-(diethylamino)ethoxy]phenyl}-2-thienyl)urea;
- 2-[(aminocarbonyl)amino]-5-{4-[2-(diethylamino)ethoxy]phenyl}-N-[3-(hydroxymethyl)phenyl]thiophene-3-carboxamide;
- 25 2-[(aminocarbonyl)amino]-5-{3-[2-(diethylamino)ethoxy]phenyl}-N-piperidin-4-ylthiophene-3-carboxamide;
- 2-[(aminocarbonyl)amino]-N-(2-aminoethyl)-5-(4-methoxyphenyl)thiophene-3-carboxamide;
- 2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-piperidin-4-ylthiophene-3-carboxamide;
- 2-[(aminocarbonyl)amino]-5-{3-[2-(diethylamino)ethoxy]phenyl}-N-pyridin-3-ylthiophene-3-
- 30 carboxamide;

2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-(1-methylpiperidin-4-yl)thiophene-3-carboxamide;

2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-[(3S)-1-methylazepan-3-yl]thiophene-3-carboxamide;

5 2-[(aminocarbonyl)amino]-5-{3-[2-(diethylamino)ethoxy]phenyl}-N-[3-(hydroxymethyl)phenyl]thiophene-3-carboxamide;

2-[(aminocarbonyl)amino]-5-{4-[2-(diethylamino)ethoxy]phenyl}-N-pyrrolidin-3-ylthiophene-3-carboxamide;

10 2-[(aminocarbonyl)amino]-5-{4-[2-(diethylamino)ethoxy]phenyl}-N-pyridin-3-ylthiophene-3-carboxamide;

2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-[(3S)-1-methylpiperidin-3-yl]thiophene-3-carboxamide;

2-[(aminocarbonyl)amino]-5-{3-[2-(diethylamino)ethoxy]phenyl}-N-pyrrolidin-3-ylthiophene-3-carboxamide;

15 2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-[(3R)-piperidin-3-ylmethyl]thiophene-3-carboxamide;

2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-[(3S)-pyrrolidin-3-yl]thiophene-3-carboxamide;

20 2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-[(3R)-pyrrolidin-3-yl]thiophene-3-carboxamide;

2-[(aminocarbonyl)amino]-N-[2-(dimethylamino)ethyl]-5-(4-methoxyphenyl)thiophene-3-carboxamide;

2-[(aminocarbonyl)amino]-N-[2-(diethylamino)ethyl]-5-(4-methoxyphenyl)thiophene-3-carboxamide;

25 2-[(aminocarbonyl)amino]-N-[(3S)-azepan-3-yl]-5-(4-methoxyphenyl)thiophene-3-carboxamide;

2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-[(3R)-piperidin-3-yl]thiophene-3-carboxamide;

2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-(piperidin-4-ylmethyl)thiophene-3-carboxamide;

30 2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-pyrrolidin-3-ylthiophene-3-carboxamide;

2-[(aminocarbonyl)amino]-N-(1-ethylpiperidin-3-yl)-5-(4-methoxyphenyl)thiophene-3-carboxamide;

2-[(aminocarbonyl)amino]-N-[(3S)-1-ethylazepan-3-yl]-5-(4-methoxyphenyl)thiophene-3-carboxamide;

5 2-[(aminocarbonyl)amino]-5-(3-hydroxyphenyl)-N-piperidin-4-ylthiophene-3-carboxamide;

2-[(aminocarbonyl)amino]-5-(4-hydroxyphenyl)-N-piperidin-4-ylthiophene-3-carboxamide;

2-[(aminocarbonyl)amino]-5-(3-methoxyphenyl)-N-piperidin-4-ylthiophene-3-carboxamide;

tert-butyl (3S)-3-({[2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-3-thienyl]carbonyl} amino)pyrrolidine-1-carboxylate;

10 2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-piperidin-3-ylthiophene-3-carboxamide;

2-[(aminocarbonyl)amino]-N-(1-benzylpiperidin-4-yl)-5-(4-methoxyphenyl)thiophene-3-carboxamide;

tert-butyl 3-({[2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-3-thienyl]carbonyl} amino)piperidine-1-carboxylate;

15 2-[(aminocarbonyl)amino]-5-[4-(2-piperidin-1-ylethoxy)phenyl]-N-(2-pyridin-4-ylethyl)thiophene-3-carboxamide;

2-[(aminocarbonyl)amino]-5-[4-(2-piperidin-1-ylethoxy)phenyl]-N-(2-pyridin-4-ylethyl)thiophene-3-carboxamide;

2-[(aminocarbonyl)amino]-N-azetidin-3-yl-5-(4-methoxyphenyl)thiophene-3-carboxamide;

20 2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-[(2S)-pyrrolidin-2-ylmethyl]thiophene-3-carboxamide;

2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-pyridin-4-ylthiophene-3-carboxamide;

2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-(2-piperazin-1-ylethyl)thiophene-3-carboxamide;

25 2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-(2-piperidin-1-ylethyl)thiophene-3-carboxamide;

2-[(aminocarbonyl)amino]-N-1-azabicyclo[2.2.2]oct-3-yl-5-(4-methoxyphenyl)thiophene-3-carboxamide;

2-[(aminocarbonyl)amino]-N-(2-hydroxyethyl)-5-(4-hydroxyphenyl)thiophene-3-carboxamide;

- 2-[(aminocarbonyl)amino]-N-(trans-4-hydroxycyclohexyl)-5-(4-methoxyphenyl)thiophene-3-carboxamide;
- 2-[(aminocarbonyl)amino]-5-(4-hydroxyphenyl)-N-(2-pyridin-4-ylethyl)thiophene-3-carboxamide;
- 5 2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-(2-piperazin-1-ylethyl)thiophene-3-carboxamide;
- 2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-(2-pyridin-4-ylethyl)thiophene-3-carboxamide;
- 10 2-[(aminocarbonyl)amino]-5-(4-hydroxyphenyl)-N-(2-pyridin-3-ylethyl)thiophene-3-carboxamide;
- 2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-(2-pyridin-3-ylethyl)thiophene-3-carboxamide;
- 2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-(2,2,6,6-tetramethylpiperidin-4-yl)thiophene-3-carboxamide;
- 15 2-[(aminocarbonyl)amino]-5-(2-methoxyphenyl)-N-piperidin-4-ylthiophene-3-carboxamide;
- 2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-(tetrahydrofuran-2-ylmethyl)thiophene-3-carboxamide;
- tert-butyl (3R)-3-([2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-3-thienyl]carbonyl)amino)piperidine-1-carboxylate;
- 20 2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-(pyridin-3-ylmethyl)thiophene-3-carboxamide;
- tert-butyl 3-([2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-3-thienyl]carbonyl)amino)azetidine-1-carboxylate;
- 2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-(pyridin-4-ylmethyl)thiophene-3-
- 25 carboxamide;
- 2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-(3-methoxypropyl)thiophene-3-carboxamide;
- 2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-[2-(2-thienyl)ethyl]thiophene-3-carboxamide;
- 2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-(2-thienylmethyl)thiophene-3-carboxamide;
- 30 N-[3-(1,4-diazepan-1-ylcarbonyl)-5-(4-methoxyphenyl)-2-thienyl]urea;

- 2-[(aminocarbonyl)amino]-N-(2-methoxyethyl)-5-(4-methoxyphenyl)thiophene-3-carboxamide;
2-[(aminocarbonyl)amino]-5-(4-hydroxyphenyl)-N-(2-thienylmethyl)thiophene-3-carboxamide;
2-[(aminocarbonyl)amino]-N-{2-[(2-furylmethyl)thio]ethyl}-5-(4-methoxyphenyl)thiophene-3-carboxamide;
- 5 2-[(aminocarbonyl)amino]-5-(4-hydroxyphenyl)-N-[2-(2-thienyl)ethyl]thiophene-3-carboxamide;
N-(3-[(4-aminopiperidin-1-yl)carbonyl]-5-{3-[2-(diethylamino)ethoxy]phenyl}-2-thienyl)urea;
2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-[(3R)-piperidin-3-ylmethyl]thiophene-3-carboxamide;
- 10 2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-(1,2,3,4-tetrahydroquinolin-3-yl)thiophene-3-carboxamide;
- 2-[(aminocarbonyl)amino]-N-(1,3-benzodioxol-5-ylmethyl)-5-(4-methoxyphenyl)thiophene-3-carboxamide;
- 2-[(aminocarbonyl)amino]-N-(3-methoxybenzyl)-5-(4-methoxyphenyl)thiophene-3-carboxamide;
- 15 2-[(aminocarbonyl)amino]-N-[2-(3,4-dimethoxyphenyl)ethyl]-5-(4-methoxyphenyl)thiophene-3-carboxamide;
- 2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-[(5-methyl-2-furyl)methyl]thiophene-3-carboxamide;
- 2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-(pyridin-2-ylmethyl)thiophene-3-carboxamide;
- 20 2-[(aminocarbonyl)amino]-N-(4-fluorobenzyl)-5-(4-methoxyphenyl)thiophene-3-carboxamide;
- tert-butyl 4-({[2-[(aminocarbonyl)amino]-5-(3-methoxyphenyl)-3-thienyl]carbonyl}amino)piperidine-1-carboxylate;
- 2-[(aminocarbonyl)amino]-N-(2-methoxybenzyl)-5-(4-methoxyphenyl)thiophene-3-carboxamide;
- 2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-(2-phenoxyethyl)thiophene-3-carboxamide;
- 25 2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-N-(2-pyridin-2-ylethyl)thiophene-3-carboxamide;
- tert-butyl 4-({[2-[(aminocarbonyl)amino]-5-(4-methoxyphenyl)-3-thienyl]carbonyl}amino)piperidine-1-carboxylate;
- 2-[(aminocarbonyl)amino]-N-(4-methoxybenzyl)-5-(4-methoxyphenyl)thiophene-3-carboxamide;

2-[(aminocarbonyl)amino]-5-{4-[2-(diethylamino)ethoxy]phenyl}-N-[(3S)-piperidin-3-yl]thiophene-3-carboxamide;

2-[(aminocarbonyl)amino]-5-{4-[2-(diethylamino)ethoxy]phenyl}-N-[(3R)-piperidin-3-yl]thiophene-3-carboxamide;

5 tert-butyl (3S)-3-[[2-[(aminocarbonyl)amino]-5-{4-[2-(diethylamino)ethoxy]phenyl}-3-thienyl)carbonyl]amino}piperidine-1-carboxylate;

2-[(aminocarbonyl)amino]-N-[(3S)-azepan-3-yl]-5-{4-[2-(diethylamino)ethoxy]phenyl}thiophene-3-carboxamide;

10 tert-butyl (3R)-3-[[2-[(aminocarbonyl)amino]-5-{4-[2-(diethylamino)ethoxy]phenyl}-3-thienyl)carbonyl]amino}piperidine-1-carboxylate;

N-[3-[(3S)-3-aminoazepan-1-yl]carbonyl]-5-(4-methoxyphenyl)-2-thienylurea;

5-{4-[2-(diethylamino)ethoxy]phenyl}-2-[[pyrazin-2-ylamino]carbonyl]amino}-N-[(3S)-pyrrolidin-3-yl]thiophene-3-carboxamide;

15 5-{3-[2-(diethylamino)ethoxy]phenyl}-2-[[pyrazin-2-ylamino]carbonyl]amino}-N-[(3S)-pyrrolidin-3-yl]thiophene-3-carboxamide;

5-{3-[2-(diethylamino)ethoxy]phenyl}-N-piperidin-4-yl-2-[[pyrazin-2-ylamino]carbonyl]amino}thiophene-3-carboxamide;

N-[(3S)-azepan-3-yl]-5-(4-methoxyphenyl)-2-[[pyrazin-2-ylamino]carbonyl]amino}thiophene-3-carboxamide;

20 5-{3-[2-(diethylamino)ethoxy]phenyl}-N-piperidin-3-yl-2-[[pyrazin-2-ylamino]carbonyl]amino}thiophene-3-carboxamide;

N-(2-aminoethyl)-5-(4-methoxyphenyl)-2-[[pyrazin-2-ylamino]carbonyl]amino}thiophene-3-carboxamide;

25 5-{4-[2-(diethylamino)ethoxy]phenyl}-N-piperidin-3-yl-2-[[pyrazin-2-ylamino]carbonyl]amino}thiophene-3-carboxamide;

5-(4-methoxyphenyl)-N-piperidin-4-yl-2-[[pyrazin-2-ylamino]carbonyl]amino}thiophene-3-carboxamide;

tert-butyl 3-[[5-{3-[2-(diethylamino)ethoxy]phenyl}-2-[[pyrazin-2-ylamino]carbonyl]amino]-3-thienyl)carbonyl]amino}piperidine-1-carboxylate;

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5-{4-[2-(diethylamino)ethoxy]phenyl}-N-piperidin-4-yl-2-[[pyrazin-2-ylamino)carbonyl]amino}thiophene-3-carboxamide;

5-(4-methoxyphenyl)-2-[[pyrazin-2-ylamino)carbonyl]amino}-N-[(3S)-pyrrolidin-3-yl]thiophene-3-carboxamide;

5 N-[3-(1,4-diazepan-1-ylcarbonyl)-5-(4-methoxyphenyl)-2-thienyl]-N'-pyrazin-2-ylurea;
N-[3-[(3-aminopyrrolidin-1-yl)carbonyl]-5-(4-methoxyphenyl)-2-thienyl]-N'-pyrazin-2-ylurea;
tert-butyl 4-[[5-(4-methoxyphenyl)-2-[[pyrazin-2-ylamino)carbonyl]amino}-3-thienyl)carbonyl]amino}piperidine-1-carboxylate;

10 tert-butyl 3-[[5-{4-[2-(diethylamino)ethoxy]phenyl}-2-[[pyrazin-2-ylamino)carbonyl]amino}-3-thienyl)carbonyl]amino}piperidine-1-carboxylate;

5-[4-(2-diethylamino-ethoxy)-phenyl]-2-(3-hydroxy-urea)-thiophene-3-carboxylic acid-(S)-piperidin-3-ylamide;

2-[(aminocarbonyl)amino]-N-[(3S)-azepan-3-yl]-5-(3-methoxyphenyl)thiophene-3-carboxamide;

2-[(aminocarbonyl)amino]-5-(2-hydroxyphenyl)-N-[(3S)-piperidin-3-yl]thiophene-3-carboxamide;

2-[(aminocarbonyl)amino]-5-(3-methoxyphenyl)-N-[(3S)-piperidin-3-yl]thiophene-3-carboxamide;

2-[(aminocarbonyl)amino]-5-[2-(benzyloxy)phenyl]-N-[(3S)-piperidin-3-yl]thiophene-3-carboxamide.

20

18. A compound of formula (I) or a pharmaceutically acceptable salt thereof as recited in any one of claims 1 to 17 for use as a medicament.

19. The use of a compound of formula (I) or a pharmaceutically acceptable salt thereof as recited in any one of claims 1 to 17, in the manufacture of a medicament for the treatment or prophylaxis of disorders associated with cancer.

20. A method for the treatment of cancer comprising administering to a human a therapeutically effective amount of a compound of formula (I) or a pharmaceutically acceptable salt thereof as defined in any one of claims 1 to 17.

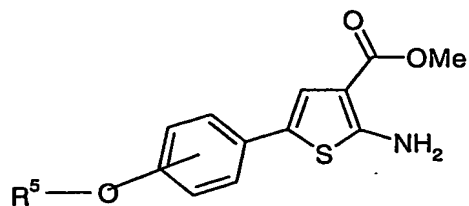
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21. A method for the treatment of breast cancer, colorectal cancer, ovarian cancer, lung (non small cell) cancer, malignant brain tumors, sarcomas, melanoma and lymphoma by administering a compound of formula I or a pharmaceutically acceptable salt thereof as defined in any one of
5 claims 1 to 17.
22. A method of treating cancer by administering to a human a compound of formula (I) or a pharmaceutically acceptable salt thereof as defined in any one of claims 1 to 17 and an anti-tumor agent.
10
23. A method of treating cancer by administering to a human a compound of formula (I) or a pharmaceutically acceptable salt thereof as defined in any one of claims 1 to 17 and a DNA damaging agent.
- 15 24. A method for the treatment of infections associated with cancer comprising administering to a host in need of such treatment a therapeutically effective amount of a compound of formula (I) or a pharmaceutically acceptable salt thereof as defined in any one of claims 1 to 17.
- 20 25. A method for the prophylaxis treatment of infections associated with cancer comprising administering to a host in need of such treatment a therapeutically effective amount of a compound of formula (I) or a pharmaceutically acceptable salt thereof as defined in any one of claims 1 to 17.
- 25 26. A pharmaceutical composition comprising a compound of formula (I) or a pharmaceutically acceptable salt thereof as defined in any one of claims 1 to 17 together with at least one pharmaceutically acceptable carrier, diluent or excipient.
- 30 27. A process for the preparation of a compound of formula (I) or a pharmaceutically acceptable salt or *in vivo*-hydrolysable precursors thereof as defined in any one of claims 1 to 17, which comprises:

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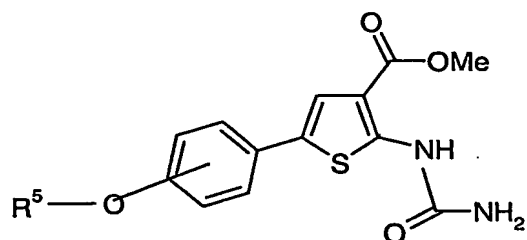
(a) the reaction of a 2-aminothiophene shown below as Formula II



II

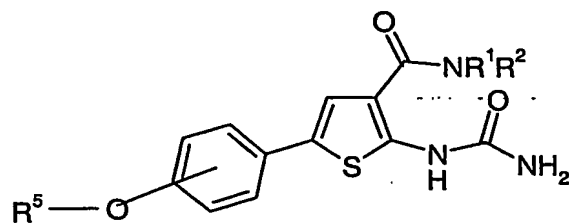
wherein the hydrogen at the 2-amino position is displaced to form an amide, shown as formula III

5 below



III

wherein the methyl ester is converted to an amide utilizing the desired amine in conjunction with an aluminate organometallic complex, to give the product shown as formula IV below:

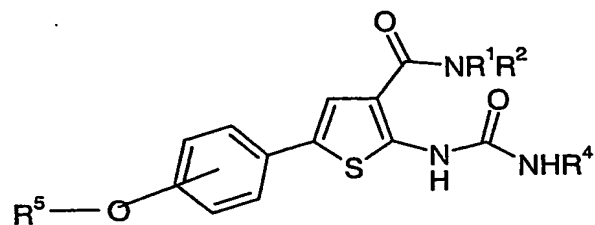


IV

Wherein the amide is converted to various substituted secondary ureas by the reaction with various isocyanates to yield the product shown as formula V below:

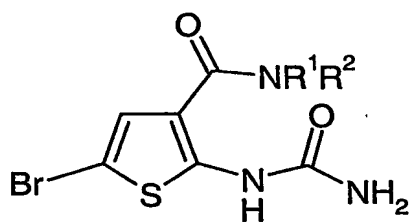
15

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V

28. The use of a compound of formula (VI) below or a pharmaceutically acceptable salt or an in vivo hydrolysable precursor in the manufacture of a compound of formula (I) as set forth in any one of claims 1-17.



VI